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ABSTRACT

This guide raises and discusses questions to guide workplace literacy. The historic context for this handbook is the progress of Project REACH from its inception in 1986 to the present. An introduction considers how an workplace literacy. An introduction considers how an organization's history affects program decisions. Chapter 1 looks at definitions of literacy, examines current approaches to assessment in education and training, and considers how assessment methods in organizations differ from those in school and the implications for practice. Chapter 2 outlines the steps to conducting an organizational assessment: decide if the approach is appropriate to the situation; get stakeholders on board and committed; conducting observations, interviews, focus groups, and document analysis; and reporting assessment results to stakeholders and developing a plan. Chapter 3 outlines the strongest themes that emerged from observations and interviews in the National Institute for Literacy Survey. It focuses on motivational factors: 'he joy, pride, anger, and disappointment of working from the employees' perspective. Literacy issues are then examined more directly: the centrality of language to the job, uses of print, importance of speaking up, incentives for further education, role of civil service testing, organizational barriers and incentives to learning, changing organizations and increasing literacy needs, and organizational learning disabilities. Chapter 4 considers how to use these findings. Appendixes include a 26-item annotated bibliography and project instruments. (YLB)

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PROJECT REACH

Skills for Success

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Assessment of Workplace Literacy

Asking New Questions

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By Carol D. Young, Ph.D.

The Civil Service Employees Association, Inc.
The New York State Governor's Office of Employee Relations
Albany, New York
March 1994
Funded by The National Institute for Literacy

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"No problem can be solved from the same consciousness that created it. We must learn to see the world anew."

— Albert Einstein

PROJECT REACH

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Assessment of Workplace Literacy

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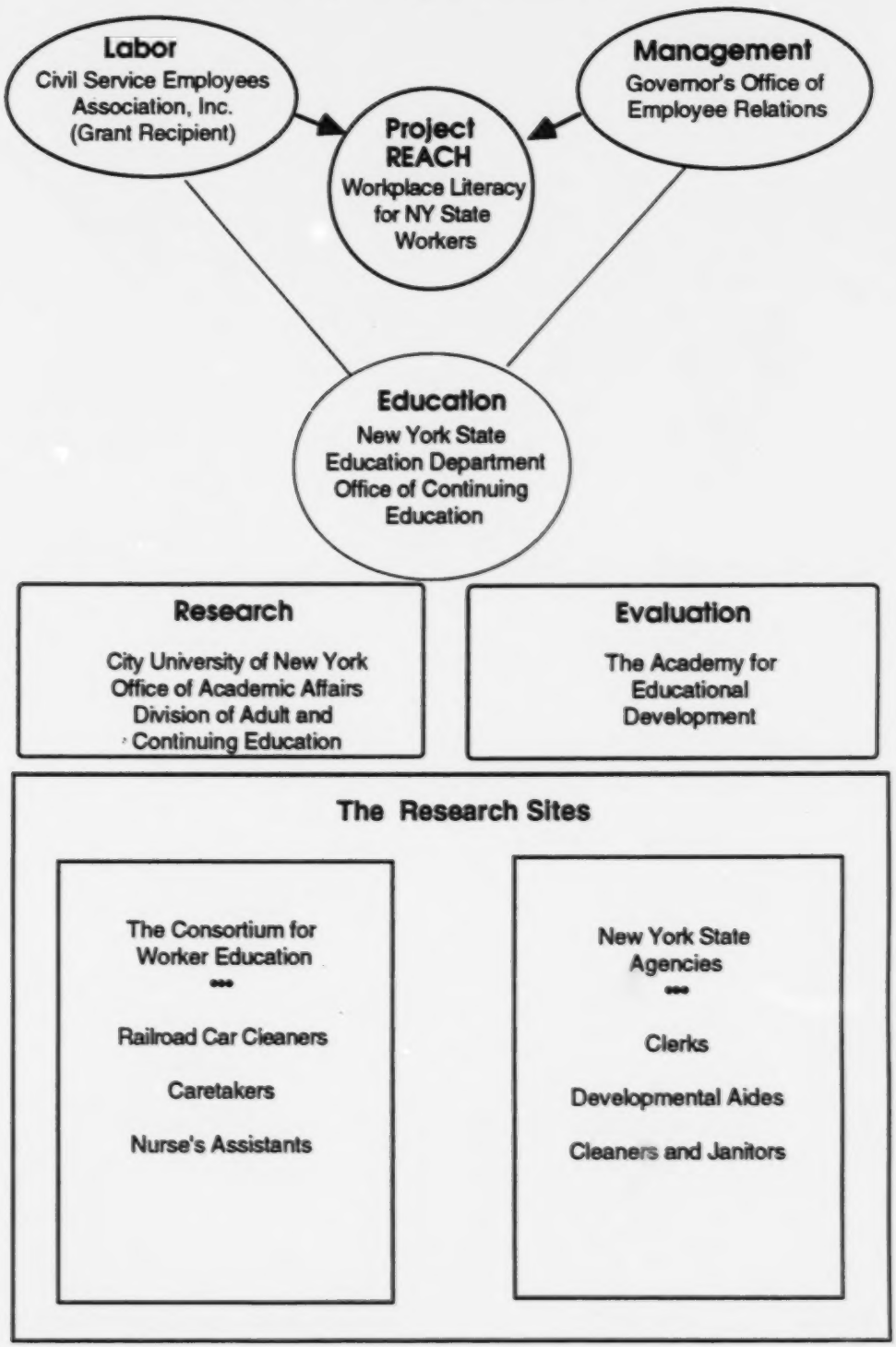
The Cooperating Organizations



Acknowledgments

This project has been a collaborative effort from the initial writing of the grant proposal to the final editing. Funded by the National Institute for Literacy, and coordinated by the Civil Service Employees Association, Inc., the project's cooperating organizations are listed on the diagram on the preceding page.

Ira Baumgarten, Director, Labor Education Action Program, the Civil Service Employees Association, Inc. served as project director in collaboration with Lori Zwicker of Project REACH, the New York State Governor's Office of Employee Relations. Diane Wagner of Project REACH was an active partner.

John Garvey, Director of Program Development, Division of Adult and Continuing Education, Office of Academic Affairs, City University of New York, guided the research design, trained the researchers, and advised throughout the project.

Bob Knower, Workplace Literacy Coordinator for the New York State Education Department, coordinated efforts with the Consortium for Worker Education. Joe McDermott and Fran Boren Gilkenson of the Consortium helped get the study underway.

Labor and management representatives at each research site played a vital role. Special thanks are due to the participants in the study as well as their colleagues and supervisors. Their names remain anonymous to protect confidentiality.

Alexandra Weinbaum and Diane Kangisser from the Academy for Educational Development coordinated the project evaluation and provided feedback along the way.

The research team included Carol Young and Julie Smith who shared a position as project coordinators. They were joined by researchers Sandra Colon, Jessica Kindred, Gail Samuelson, and Elena Zazanis.

Paul Jurmo and Sue Folinsbee [Waugh] provided valuable insights and support as we progressed.

Difficult moments in the search for alternative assessment . . .

"I don't know if this is such a wise thing to do, George."

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Why New Questions?

When we began this research project, we had planned to produce a definitive handbook on alternative assessment techniques for workplace literacy. We wanted a way to understand the organizational context so we could assess employees' capabilities in context. As we researched six organizations and refined our thinking, we came to believe that the up-front organizational assessment for workplace literacy should be part of an on-going collaborative process. It is a process of helping all the stakeholders in an organization ask critical questions about skills upgrading and organizational barriers and incentives to learning. Ideally, the assessment builds a foundation for long-range planning.

Therefore, in each chapter of this report we raise and discuss one or more questions. We hope that these questions will help guide other organizations in their search for effective approaches to workplace literacy.

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How does your history affect your program decisions?

Preface

Here is the historic context for this handbook – the progress of Project REACH from its inception in 1986 to its receipt of a grant from the National Institute for Literacy in 1992 which funded this report.

Project REACH: Skills for Success
A Historic View

Since 1986, Project REACH has been New York State's workplace skill enhancement program for CSEA-represented employees. The Civil Service Employees's Association (CSEA) is a public sector union that represents 100,000 State employees at over 500 locations in New York State. Project REACH is the umbrella for a wide variety of projects jointly sponsored by New York State through the Governor's Office of Employee Relations (GOER) and CSEA. Program topics and/or curriculum are customized to fit the workplace setting, and may include high school equivalency, college preparation, English as a second language, basic math, communication skills, and contextualized basic job skills. Funding for Project REACH is provided by the collective bargaining agreement between CSEA and the State, as well as from State and federal workplace literacy grants. Project REACH is administered by a joint labor/management committee.

The mission of Project REACH has changed over time. Our focus has shifted in recent years from a program concerned with "literacy" (reading and writing) to a broader context. Employees are encouraged to enhance job skills so they can meet changing job demands, take advantage of promotional opportunities and access other education and training initiatives.

Our Learning Curve on Literacy

In the beginning of Project REACH we used "off the shelf" adult literacy approaches used in Adult Basic Education, English as a Second Language and computerized instruction. We introduced these programs at various worksites, then tested *en masse*, and hired instructors and computer lab assistants. Then we wondered why, at times, few employees showed up and why many dropped out. Our intentions were good, but our approach was not totally effective.

Unknowingly, we were still applying "school" based and for that matter "elementary school" based approaches to literacy. We would determine a person's grade level and prescribe "remedial" based instruction. We thought we were "individualizing" our instruction and meeting "individual needs." We quickly learned, however, that adult workers who have been extremely productive in their jobs and with family and community responsibilities did not respond well to an approach that stigmatized them as "illiterate." In hindsight, we realized we were letting the educational provider take the lead in program development and implementation instead of creating a true partnership where we each played an active role in program design.

Then in 1986, the Commercial Motor Vehicle Safety Act forced us to see how our expertise and perspective of the workplace were crucial in shaping a successful education program. The act required all States to adopt a universal driving test for all individuals who hold commercial driving licenses. In New York State there were 14,000 State employees whose jobs required they hold a commercial driver's license. If these workers failed the new commercial driving test, they would lose their jobs and important State services would be curtailed.

To make sure our drivers could pass the test and keep their jobs, Project REACH identified the State agencies that would be most affected by the new requirement and set up a labor/management task group to develop training and tutoring. This new effort launched us on an accelerated learning process in our approach to meet literacy needs.

We learned that a standardized test such as the Test of Adult Basic Education was not going to tell what our drivers needed to learn to qualify for the new license. It was apparent that when the need for new skills and knowledge are put in a relevant concrete context with the job, *i.e.* retraining in order to keep a job, employees will come forward to learn. We learned that many of our low level readers were very intelligent and that when you respected and recognized what workers can do, they are more likely to seek assistance and not hide what they cannot do. We needed a new way of approaching how we met the basic skills needs of workers.

Moving Toward a Contextualized Approach with Creative Learning Techniques

The Project REACH labor/management team became trained and familiar with a variety of approaches in contextualized workplace literacy methods and creative learning techniques. We studied Jorie Phillipi's contextualization approach and techniques. We experimented with observing and interviewing workers in their jobs about their learning needs. We adopted many of the practices suggested by Tony Sarmiento in his book, *Worker-Centered Learning: A Union Guide To Workplace Literacy* (1989).

Armed with these innovative tools we identified worksites where a link between basic skills and required changes on the job were evident. We hired educational providers and consultants. Together we developed workplace specific basic skills curriculum. We taught work-related basic skills to direct care workers in psychiatric centers. We improved the ability of power plant workers to maintain and operate their power plant through a basic skills program entitled "Communication Skills Enhancement." In a course called "Learning to Learn," we helped developmental aides work in teams and set new professional goals.

We thought we had died and gone to literacy heaven. But we soon discovered, as always, we had more to learn.

The Added Dimension of "Site Development"

We quickly saw that even a well done creative contextualized curriculum alone cannot make a literacy program a success. Recruitment, retention and other workplace issues still posed barriers. We have learned through trial and error that each worksite is unique in its composition of workers, its organizational culture and norms, its hierarchy of support (or lack of support) and its specific need for instruction.

It became apparent that if we did not facilitate an equal level of "buy in" from management, the union, the employees to receive the training, and their immediate supervisors, our innovative curriculum wasn't going to have a snowball's chance in hell to survive. We established advisory groups made up of the previously mentioned stake holders. We oriented them in the concepts of needs assessment, contextualized learning, effective teaching and learning strategies and made them the "board of directors" of the project. No decisions were made without their involvement. We were getting good at the separate pieces of how to make a good curriculum — "course development" — and how to create buy-in at different worksites — "site development." **But how did we know if we were meeting the right need for the worker — thus creating student motivation, and teaching the right skills for the employer?**

The Missing Link: The Need for Alternative Assessment Connecting Course Development with Site Development

We needed a method, an approach, a system — something we could use that would honor the individual differences of each worksite. We wanted an assessment approach that would bring respect and dignity, not embarrassment, to the workers who would participate in the program. We wanted an alternative assessment method that would not assume that a "basic skills" program was the remedy to a more productive workplace, but would objectively assess what the needs of a given organization were. We wanted a procedure that would help

involve workers in their own learning, involve supervisors to support education, and involve management to provide the resources needed for the program to succeed. We needed help in finding this important missing link in how we developed programs.

As a result, in August of 1992, we submitted a grant proposal to the National Institute for Literacy to research and explore the process of an alternative assessment.

Impact of the NIFL Research Grant on Project REACH

The NIFL research project helped us crystallize our thinking that workplace literacy is not a simple intervention, but rather a process of having an organization take a serious look at how its workers learn. It's a process of creating involvement from all levels of an organization toward a common goal that must be developed together. We learned that success in workplace literacy is more of a journey of discovery, than arrival at a predetermined fixed destination.

We discovered that there are several levels and types of assessment and that "standardized assessment" in itself is not always a "bad word." What we found crucial is to begin our assessment with the organization and then in the context of an agreed upon common goal, conduct individual assessment as needed. This individual assessment can take many forms from a portfolio approach to standardized reading and math exams. For us, this level of individual assessment is an on-going part of instruction where rapport is established and the student sets his or her learning goals.

What follows is our exploration and experience with our NIFL grant on this important subject of assessment. We look forward to an on-going process of discovery and a continued dialog on what works!

For More Information on Project REACH's Research Project and Program Practices

Project REACH would welcome an opportunity to exchange ideas and program approaches with other workplace literacy practitioners. If you are interested in specifics of our study or would like more information contact:

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Questions

What are you assessing and for what purpose?

What definition of literacy is guiding your approach?

Chapter One

A Theoretical Framework: What Are We Assessing and Why?

In this chapter we began by looking at different definitions of literacy because how you define literacy shapes what you assess. We examine current approaches to assessment in education and training in terms of their strengths and limitations. Finally we look at how assessment methods in organizations are different from those in schools and what the implications are for practice.

Definitions of Literacy "Literacy is not like being pregnant"

Behind any assessment approach and workplace literacy program is an implicit or explicit understanding of what literacy is and how people acquire it. Literacy is not like being pregnant not only because you *can* be a little literate but also because thoughtful people can disagree on what it means to be literate. In a workplace literacy program it is easy to assume that all partners are working from the same assumptions and definitions – yet this may not be the case (Schultz, 1992).[1]

There are four prevailing definitions of literacy:

- literacy as a set of skills
- literacy as the ability to accomplish tasks
- literacy as social practice
- literacy as political empowerment and critical reflection

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1 Katherine Schultz's article "Training for Basic Skills or Educating Workers?: Changing Conceptions of Workplace Education Programs" teases out the underlying and conflicting conceptions behind many workplace literacy programs. It helped clarify our thinking.

These definitions are not mutually exclusive. They are more like concentric circles. Literacy as a set of skills is the narrowest definition at the center followed by the broader definition of literacy as the ability to accomplish tasks encircled by the more inclusive definitions of literacy as social practice and finally as political empowerment.

The Four Definitions of Literacy

1. Literacy as a set of skills

The first, narrowest and most common definition conceptualizes literacy as specific skills to decode and encode language for reading and writing. Often the first reaction to considering the need for a literacy program comes from the realization that some people "can't read;" and the logical next step is to test to find out who "can't read."

According to this definition, reading and writing are skills that exist and can be tested regardless of the context and regardless of how the individual applies them. Standardized tests are designed to test skills regardless of the context. **The unit of analysis is the individual.**

Standardized Testing

Testing represents the traditional, most widely used and accepted approach to assessment in American schools. In addition to teacher-made tests, standardized tests are a multi-million dollar American enterprise. The beauty of standardized tests is that they report standardized results and allow comparison to national norms. Their purpose is to provide comparable results regardless of the setting. In adult literacy standardized tests such as the Test of Adult Basic Education (TABE) measure skills divorced from any practical application. The newly developed Educational Testing Service (ETS) test includes more practical applications in its measurement of adult literacy. For example, the section on document literacy tests filling in a checkbook, and the numeracy section presents simulated "real life" problems such as deciphering a bus schedule.

The limitations of standardized tests for workplace literacy programs are at least three-fold – varying from conceptual to very practical concerns.

First, at the most basic conceptual level, is the definition of literacy. If one is looking to understand literacy in a social or organizational context, then, by definition, these tests do not measure social or organizational variables. They are meant to measure skills devoid of the influences of context.

Second, on a more practical level, in the workplace, test scores or grade level equivalents are of limited usefulness. Standardized tests cannot show how people apply their skills to get the job done. More importantly, no test can show what organizational factors act as barriers to people's using and developing their skills to get the job done. Also, standardized tests may exaggerate skill deficits. Research on the nature of practical knowledge shows that people use inventive non-standard methods to solve practical problems in areas such as math (Lave *et al,* 1988). A standardized test will show that a person can't solve test problems but won't reveal the person's abilities to solve practical problems on the job or at home.

Finally, standardized tests can create real problems in the implementation of workplace literacy programs. Tony Sarmiento of the AFL-CIO voices the same concerns we have experienced in Project REACH (Sarmiento, 1989). If employees are not involved in setting up a workplace literacy program, they are likely to perceive testing as demeaning and threatening. Employees do not want to reveal personal deficiencies especially if they do not trust how test results will be used by their employers. Moreover, employees can be outraged if they feel that productivity problems are being blamed on their skill deficiencies when other organizational problems are really to blame.

Our experience in Project REACH is that standardized tests are only appropriate in specialized cases and only *after* we understand the larger social and political context for the workplace literacy program.

2. Literacy as Tasks

Much of the research and assessment in workplace literacy relies on a functional definition of literacy as the ability to accomplish tasks. Literacy in the workplace means having the cognitive skills necessary to accomplish work-related tasks. This definition expands to include basic skills such as math, communication and problem-solving. For example, do employees have the basic skills necessary to fill out forms, read manuals, give directions, etc.

To assess literacy as tasks, one needs to determine which are the critical tasks and whether individuals can complete these tasks adequately. Literacy task analysis assesses the cognitive skills necessary to accomplish defined job tasks. The purpose is to discover the underlying sub-sets of skills involved in accomplishing a task. **The unit of analysis is the task.** To assess individuals would require observing them performing the task or a simulation of it. (Philippi, 1991)

Literacy Task Analysis or Literacy Audits

Literacy task analysis or literacy audits have become the norm for workplace literacy programs in a very short period of time (Schultz, 1992). Literacy audits and literacy task analyses use a combination of methods to understand the cognitive skills imbedded in work-related tasks. (See Philippi, 1991.) The goal is to tease out the cognitive skills embedded in key tasks and then to build a curriculum around the "functional context" of the job, that is, the skills learned in instruction are presented in the context of the job and immediately used and reinforced on the job.

Ideally, Literacy Task Analysis forms the foundation for a curriculum that is reinforced daily on the job. Instruction focuses on work-related skills. In practice we have experienced both conceptual and practical problems with Literacy Task Analysis.

Conceptually, Literacy Task Analysis assumes that the best way to learn skills is break them into sub-skills and teach each sub-skill building from simplest to most complex. For higher level thinking skills such as working in teams or problem-solving this building block approach has limitations. In his book *To Think*, Frank Smith sums up: "thinking cannot be broken down into parts, specified in objectives, and taught in isolated exercises and drills. All of this interferes with thought." (Smith, 1990, p. 128)

Literacy task analysis came from manufacturing and military settings. We find that this approach to tasks is less suited to many service sector job responsibilities. When the goal is to build higher level thinking skills, it's hard to find neat tasks to break into cognitive sub-skills. In working with direct care workers, Gina Guaraldi of the Step II program in Florida argues: "Contrary to

this traditional philosophy, our partnership believes that, regardless of the learners' skill level, basic and higher order skills not only can but must be taught together. . . . Only after we have explored and repeatedly modeled the higher order skills do we even begin to work with students on mechanical aspects of speaking and writing. . ."

At a practical level, we have found worksites were either too complex or too simple to lend themselves well to task analysis. For example, developmental aides need higher order thinking skills. By contrast at a laundry and in custodial settings we found that the jobs were primarily physical in nature. Curriculum based on the job tasks was not engaging or challenging enough.

The standard literature on Literacy Task Analysis acknowledges the importance of working with an advisory committee of representatives from labor and management and training and education in order to have support from all quarters. Most programs have discovered that partnerships are absolutely essential to successful implementation. We believe this is because of the social and political nature of literacy that is rarely acknowledged explicitly.

3. Literacy as Social Practice

In this definition literacy is more than a subset of specific skills or the skills to accomplish a task. Literacy is a social phenomenon. To assess literacy as social practice requires understanding the social context in which language is used. In the workplace this means understanding the social context of how people interact and accomplish work. **The unit of analysis is the social unit** as opposed to the individual or the task.

Industrial Ethnography

Qualitative or "ethnographic" research methods are effective ways to assess literacy as a social practice. Tests of individuals or close analysis of clearly defined tasks will miss the social uses of language and literacy. Observations and interviews over a period of time are a proven method for capturing social interactions.

Ethnographic methods stem from anthropology, in which a researcher tries to understand a culture from the point of view of the participants — without imposing the researcher's own values or framework. The researcher goes to the field, observes, asks questions, interviews, and studies artifacts.

Ethnographic methods in organizations started with the famous Hawthorne study. The researchers began by trying to study very controlled variables such as lighting to see what effects it had on productivity. They discovered that their presence in the workplace affected productivity more than the variable they were studying. They discovered the power of the informal organization — the social and political context in which people work. They found that productivity was

not a straight-forward rational equation. Only through close observation and interviews with the workers did they get a different and more accurate picture of how powerful informal factors affected productivity (Schwartzman, 1993).

Charles Darrah's work (1992) is a fascinating recent example of industrial ethnography. Darrah cautions against the "grand tour" and quick look to understand how people work. His long-term ethnographic study of a factory found that workers had individualistic ways for solving problems on the shop floor. These were rarely communicated up through the organization, and an outsider would not see them at first look.

In an approach related to ethnography, the Institute for Research on Learning (IRL) studies schools and workplaces to find "communities of practice" where they believe most learning occurs. IRL uses videos to study communities of practice to capture how workers actually communicate, learn and accomplish work. For example, IRL found that air traffic controllers were less effective when they started wearing ear phones because they could no longer over-hear each other talking (Galagan, 1993).

Industrial ethnography can provide powerful insights into the workplace. We used ethnographic techniques in our National Institute for Literacy study and gained valuable insights into workplace literacy in context. Chapter Three highlights some of our findings. Nevertheless, ethnographic methods have two limitations for workplace literacy. First, in-depth ethnography requires extensive time and resources beyond the reach of most workplace education programs.

Secondly, ethnographic methods have been criticized because they can be used to manipulate front-line workers as well as to help them. In other words, gaining the front-line workers' perspective on the organization can be used for or against the workers and in no way guarantees that worker-centered interventions will result. The Hawthorne study, which founded the field of industrial ethnography, has been criticized over the years because the researchers used their findings to help management manipulate the workers (Schwartzman, 1993).

4. Literacy as Empowerment and Critical Reflection

The fourth definition of literacy is rarely mentioned in discussions of the workplace – more often it is used in community and third world literacy programs (Freire, 1993). But it applies in the workplace as well. This definition focuses on literacy as the power to question and change oppressive practices. People who have few skills with language are usually at the bottom of the organizational hierarchy. As workplaces begin to discuss empowerment, it is not surprising that literacy has become an issue. The ability to participate in teams, to take responsibility for decision making and problem-solving taps into

skills, attitudes, and power. Literacy in this context of empowerment means much more than a sub-set of work-related skills. It means the confidence to speak up, to be heard, and to question. It also requires an organization in which people are free to speak up.

The issue of power is always present in the workplace. The most effective literacy programs take this into account by forming partnerships in which labor and management share decision making. Assessments have implications for the balance of power. How the assessment results will be used and who has access to the information are questions of power. Employees will resist an assessment that jeopardizes their position or job security.

An accurate assessment must capture the views of all the stakeholders. The view from the top down is always different from the view from the bottom up. An accurate assessment must capture the view from the workers as well as from management.

In 1989 Tony Sarmiento of the AFL-CIO wrote: "Involving workers is more important to launching a workplace literacy program than measuring their skill levels. Not only is it less likely to alienate the learners to be served by the program, but employee involvement is an absolute necessity in formulating a learner-centered approach and curriculum that meets the educational objectives of both management and workers." Later he goes on to state "If launching a workplace basics program is a political process, then one must first investigate the other critical factors before measuring workers' reading or writing skills." Measuring skills without understanding the context or involving the worker will cause a program to "miss the boat."

If literacy is the ability to question and engage in critical reflection, it cannot be a process in which the person being assessed has no say or power. Ideally, the learner is an active partner in the assessment process. In assessing literacy as empowerment, **the unit of analysis is the organization or organizational unit.**

DEFINITIONS OF WORKPLACE LITERACY

Definition	Example	Assessment Approach	Unit of Analysis
Literacy as a Set of Skills	Skills that exist regardless of the context, for example, the ability to decode and encode language in reading and writing	Testing	Individual
Literacy as the Accomplishment of Tasks	The ability to use computation, communication, reading, writing, basic skills to accomplish a task such as following a written procedure or filling in a form.	Literacy Task Analysis	The Job or Specific Tasks
Literacy as Social Practice	Constructing the meaning of text and communication in each situation. Group accomplishment of goals.	Industrial Ethnography: Observations interviews, focus groups, and video	The Social Unit, Communities of Practice
Literacy as Political Empowerment and Critical Reflection	Literacy as the confidence and power to speak up and question the status quo.	Partnership of stakeholders Multiple measures Organizational Needs Analysis	Organization or organizational unit

Organizational Needs Analysis

We were very excited this past year to discover the work of Sue Folinsbee (Waugh) of ABC Canada in Organizational Needs Analysis and Laura Sperazzi and Paul Jurmo in team-based evaluation. We began our study with a social model of assessment and were pleased to find a more comprehensive

organizational model. Folinsbee's approach is based on several solid years of implementation in organizations across Canada. It relies heavily on ethnographic techniques while also taking practical political and economic realities into account.

As outlined in the diagram that follows, Organizational Needs Analysis establishes a workplace literacy program as part of a developmental process in an organization. It addresses both the social and political nature of literacy. The first steps in the process are establishing a need and gaining the support of key stakeholders in the organization such as management, labor, training, and front-line supervisors. The next step is to establish an advisory team of stakeholders to steer the implementation of the entire process.

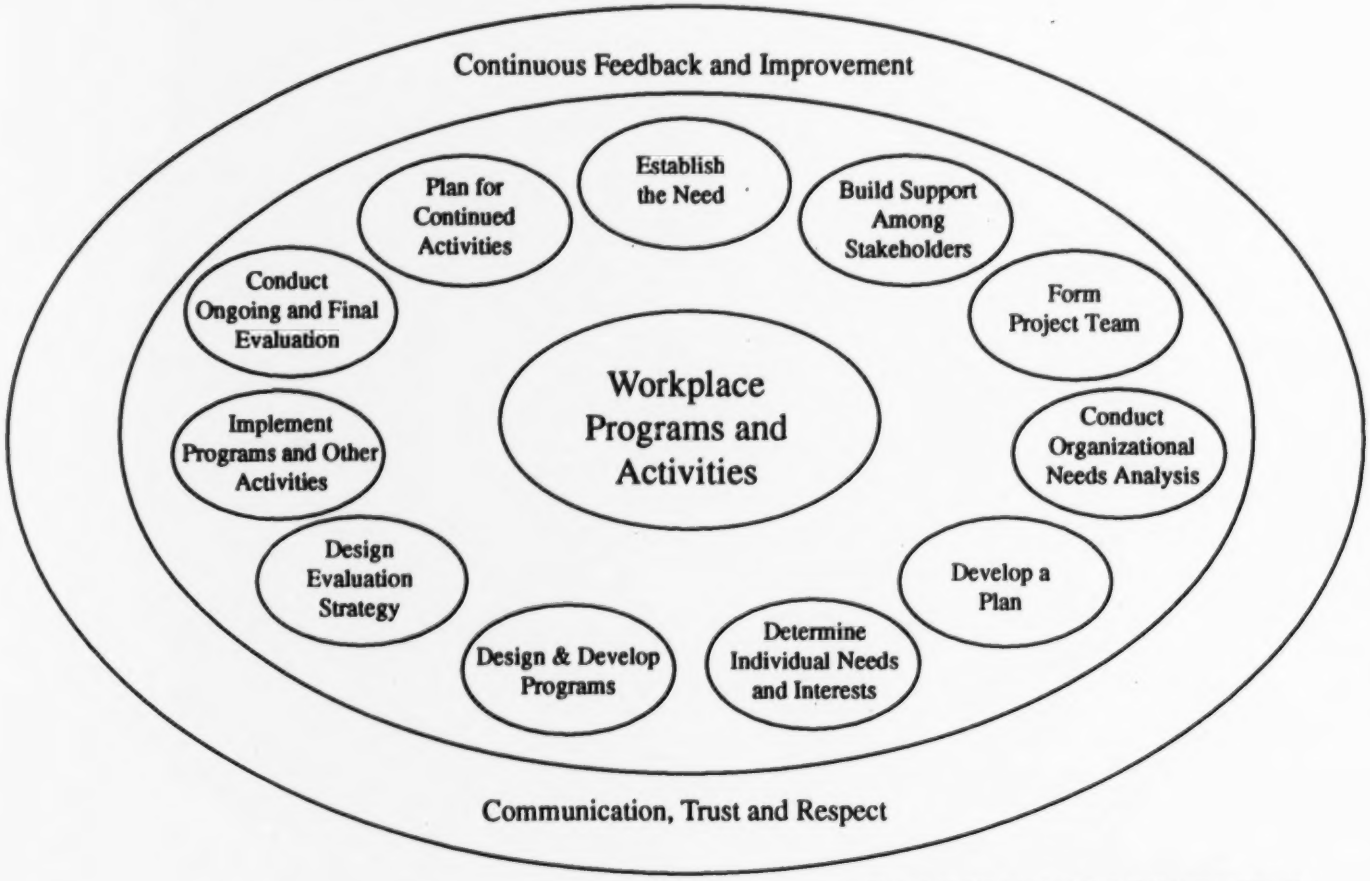
Only after the stakeholders are in place does the Organizational Needs Analysis take place. Working with an advisory project team, an external consultant conducts the analysis with interviews and focus groups of representatives throughout the organization. Folinsbee uses ethnographic techniques such as focus groups and interviews. Only sometimes does she find tasks that lend themselves to Literacy Task Analysis.

Once the up-front analysis is complete, the project team sets priorities and develops a short and long-term plan. Only then are individual needs and interests assessed and programs designed and developed. After an evaluation strategy is in place, programs and other activities begin. This is a cyclical on-going process.

Paul Jurmo and Laura Sperazzi's model of team-based evaluation builds onto the process. In this model the advisory team is responsible for setting the program's objectives and collecting data and feedback for continuous improvement and planning.

The process is educational and political. The project team studies basic skills as an issue organization-wide. The Organizational Needs Analysis looks at how communication and skills are used organization-wide — what are the barriers to communication and skills upgrading. This approach does not single out workers as "deficient." It is as likely to unearth organizational barriers as individual ones. For example, front-line workers often have trouble following written directions because the directions are poorly written. Recommendations for clear writing workshops are as often an outcome as are reading classes. The needs analysis takes a long view to determine the long range goals and steps necessary to reach them. Basic skills classes are part of a bigger organizational picture.

Planning a Workplace Basic Skills Initiative



Based on the work of Sue Folinsbee [Waugh]
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Translating Between the Language of Schools and Business

Schools shape our beliefs about learning in powerful ways. Fascinating research is emerging about the nature of non-school learning and practical knowledge. This research challenges many of our assumptions about how people learn and, therefore, has implications for assessment as well.

In comparison to work settings, schools are basically homogeneous and predictable. There are teachers, classes, students, books, curricula, schedules, etc. By contrast workplaces vary considerably in the ways people communicate, the nature of the problems they solve, the tools they use, and the ways in which they are rewarded and motivated.

Our approach was inspired by the work of cognitive psychologists such as Sylvia Scribner and Jean Lave who studied the nature of learning at work and at home. Scribner found workers were able to develop sophisticated problem-solving skills and perform complex tasks very specific to their workplace — without necessarily being able to apply these skills in any other context. For example, dairy workers could perform complex applied math operations without being able to pass a standardized math test. This line of research challenges the assumption that we can assess and teach skills out of context. In assessing the workplace, it's important not to have preconceived notions of how people learn and develop their skills.

The word assessment has different meanings for educators and corporate trainers. Not only is the definition of literacy open to differing interpretations, educators and trainers use the word assessment in different ways. The fundamental difference is the unit of analysis. For educators, assessment means assessing the individual. In training, unlike education, it is standard operating procedure to assess training needs in terms of the task, job, or organizational unit before assessing individuals (if at all). This makes sense since training usually has some organizational purpose as its goal whereas education usually concerns individual learning. Management experts argue that only about 15% of performance problems are caused by employees and employee skill levels and about 85% by organizational systems that aren't performing properly. (Walton, 1986 and Robinson, 1989)

Implications of This Approach

In the end your approach to assessment in workplace literacy hinges on what you are trying to achieve and how you define literacy. We know from experience that assessing individual skill levels does not in any way guarantee the success of a workplace literacy program. It does not guide a work-related curriculum or provide a foundation for organizational support and change. It ignores the powerful social and political context for workplace learning.

Literacy task analysis focuses on tasks rather than on the "big picture" of the social and political context. These approaches that treat literacy as discrete skills and tasks are appealing and comfortable because they avoid the messy social and empowerment questions present in every workplace.

What the two narrower approaches cannot do is assess organizational barriers and incentives to acquiring and using those skills. Ignoring social and power issues in establishing a workplace literacy program will endanger a program's success. Many a literacy program has conducted thorough testing or Literacy Task Analysis only to run aground on the jagged rocks of social and political realities. Or alternately programs have successfully taught skills and found that employees were unable to apply those skills to their work.

Finally, testing, literacy analysis, and ethnographic methods all give workers and organizations a relatively passive role in the assessment and learning process. An assessment which engages the stakeholders in taking a look at themselves and in beginning a dialog about barriers and incentives to learning will provide a much firmer foundation for a workplace literacy program. This assessment builds a firm foundation by assuring that the right problems are being addressed and the right questions being asked. A good assessment will avoid setting up a training program in which people can't apply the skills they learn because of other organizational barriers.

This approach is not easy or quick. In the next chapter we examine questions of methodology and resources, the "how to" side of assessment.

Questions

How do you assess literacy in the social and political context of the workplace?

What should be the scope of an organizational assessment? How much is enough?

What are the steps to develop a site to support a workplace literacy initiative?

How does an organizational assessment lay the foundation for planning?

Chapter Two

How to Conduct Assessments in the Workplace Context

Where and how do you begin to assess literacy in the social and political context of the workplace? In this chapter we outline the steps to conducting an organizational assessment.

The first step is to decide if this approach is appropriate to the situation because this approach can be time-consuming and expensive. The second step is what we call "site development" – getting all the players ready. The third step is actually conducting observations, interviews, focus groups, and document analysis. The final step is reporting the assessment results to the stakeholders and developing a plan. We close with a set of principles to follow when conducting this kind of assessment.

The Steps in Conducting an Organizational Assessment

Step One — Scope of Assessment

What are we trying to achieve? Is this approach appropriate to the situation?

Step Two — Site development

Are all the stakeholders on board and committed?

Step Three — Assessment

Conducting observations, interviews, focus groups and document analysis

Step Four — Planning

Reporting the results and forming short and long-range plans.

Step One — Scope of Assessment Is This Approach Appropriate to the Situation?

Deciding to use this approach hinges on what a workplace literacy program is trying to achieve and what its resources are. What is the purpose of the assessment? And what is the context? Some workplace literacy programs are not addressing issues imbedded in the workplace culture. For example, high school equivalency classes, general adult basic education classes or personal development classes can stand alone. The employer or union offers these classes as a general benefit for personal improvement. Often an organization is not in a position to commit to an in-depth workplace-oriented assessment and curriculum. Sometimes employees' main motivation for self improvement is to escape work they don't like. In these cases it doesn't make much sense to engage in an expensive organizational assessment.

On the other hand, this organizational approach is appropriate if:

- An organization is planning a significant investment in basic skills upgrading.
- The organization is ready to engage in longer term planning.
- The organization is open to employee input and participation.
- The "stakeholders" including labor, management, and front-line supervisors are in support.
- The program wants to foster critical thinking and problem solving at all levels of the organization.

Organizational Assessment: How Much Is Enough?

The longer the range of the goal and the larger the commitment of resources, the more important it is to conduct an in-depth organizational assessment. In answering how much is enough, it is helpful to think of the entire program implementation process as outlined in Chapter One for the Organizational Needs Analysis. Each circle in the process should be as well developed as the other. Ideally time and resources on each step in the process would be equal. There would be a firm foundation in site development, followed by a thorough assessment, followed by solid planning, thorough curriculum development,

excellent teaching, thoughtful evaluation, and so on. In other words, it doesn't make sense to invest hours and hours in assessment and then ignore program development.

At a bare minimum, this assessment step requires worker and management agreement on the goals and purpose of the goals and purposes of the workplace literacy program. Even if you can only conduct a few observations and focus groups it's well worth the effort.

In the sections that follow we discuss concerns in establishing organizational commitment and conducting observations, interviews, focus groups, and document analysis.

Step Two — Site Development Building the Foundation for Assessment

We define as site development all the ground work necessary to launching a workplace literacy program. This ground work shapes the success of all that follows: the assessment, the planning, the curriculum development, instruction, other organizational interventions, and the evaluation. Of all the steps, this is the most critical to overall program success. If you have to take short cuts, don't do it in this step.

Site development involves four critical elements:

- Establishing an initial contact with someone in the organization who expresses a need.

- Getting commitments from all the stakeholders before proceeding. Stakeholders include: management, labor, potential participants, the participants' immediate supervisors, the training or human resources department (if appropriate), and the educational provider. Unless all these stakeholders are on board and committed, it does *not* make sense to continue with assessment and program implementation. It simply doesn't work.

- Forming and training an project team representing all the stakeholders. It's important that all the stakeholders know what's expected of them, and that they be prepared to function as a team. Front-line workers especially need the framework and skills to be able to participate as equal partners in this process.

- Selecting resource people and services. At this point you need to decide who will conduct the analysis and supply the educational services.

It's helpful to develop a checklist to define "commitment" so that all the stakeholders are clear on what's expected. Each program needs to decide its own bottom line. Some important indicators of commitment are:

- commitment to participate in on-going project team meetings,
- commitment to on-going financial support once initial funding is finished,
- release time (50-100%) for program participants (with support of front-line supervisors),
- provision of adequate space for learning.

In the appendix are examples of documents Project REACH uses to formalize this commitment in the site development process. There is a sample memo of understanding to be completed by both the labor and management representatives plus a list of "Keys to Success."

Once site development is in place, and you have a project team, the foundation is built for assessment. The following section outlines suggestions for observations, interviews, focus groups, and document analysis. See Sue Folinsbee and other literature on ethnographic techniques for more in-depth treatment of the methods for this type of research and assessment.

Conducting the Assessment
The Power of Observation

Observing work in context is enormously useful as well as fascinating. While few literacy programs will have the luxury of conducting in-depth ethnographic research over long periods of time, there is no reason not to do as much as you can. Even an afternoon in the workplace, or several visits of several hours each will give you a much better picture than the usual tour. Interviews and tours are no substitute for being there. Teachers and curriculum developers are excellent candidates for conducting observations because they can accomplish several tasks at once. They can get a feel for their potential students, and their potential students can start to get to know them and trust them. In this way you can take advantage of the "Hawthorne Effect" in which the researchers influence the outcome of the research.

In observations you can get a "feel" for the organization and start to see it from the perspective of the front-line employees. Each workplace is so different, this observation process helps correct false assumptions. What works in one workplace will not necessarily work in another one. The insights gained in observation can keep you from making costly mistakes in the implementation process. For example, in recruitment you'll know better how to position the program so it will be attractive and convenient to the participants.

A copy of a general observation guide is in the appendix. Here are practical considerations for making observations:

1. Make sure "site development" is in place. (See above.) The project team can help you in several important ways:

- Before you conduct observations the project team should assure that the employees being observed, their co-workers and supervisors know who you are and why you are there. It's hard to get messages through an organization. The rumor mill will create a reason for your presence if you don't.

- Get input from your project team about potential problems or "ghosts."

  For example, in our observations at a developmental center, insiders advised the researcher not to carry a clipboard because this conjured up visions of a health department inspection which employees dreaded and would not "act natural" for. At another site we were advised against using the word "interview" because it was associated with disciplinary action.

  In some settings safety is a concern. At the Housing Authority we had to ensure that the researcher would not be left alone in a potentially dangerous situation. At the commuter railroad the researcher had to wear boots and avoid the "third rail's" fatal electric current. At the hospital and developmental centers, researchers had to respect client privacy. In private business, there are often concerns about the confidentiality of proprietary information.

2. Don't get in the way of production or customer service or normal interactions. Respect the need to get the job done, especially during "crunch" times.

3. Observe the safety rules and culture of the workplace in your dress and behavior.

4. When looking for examples of reading, note how forms, manuals, notices are actually used and whether they are actually used. In the search for curriculum materials it's important not to build lessons around forms or manuals that no one uses — even though supervisors and managers may think workers use them or should use them. Find out why they don't use them - it may be because the information is not helpful or is poorly written or because workers don't need them. Informal reading — what people do on breaks — what people read on bulletin boards can also give clues.

5. Maintain confidentiality and impartiality with everyone. You will lose credibility and betray trust if you take sides or reveal confidential information.

6. Write up field notes about your observations as soon as possible. First impressions and important details soon fade. Try not to write too much as you observe; this can make people uncomfortable and affect how they act.

While ethnographers generally try to keep a low profile, practitioners may want to use their presence in the workplace as a soft sell for building interest in the educational programs that will follow.

When are you finished? This is the hardest part of ethnography. Observing an organization is like peeling an onion. Each visit reveals new insights. The longer you go, the more likely people being observed will relax and be themselves. The more of the inevitable conflict and friction of day-to-day living will emerge as well as the hidden strengths of the organization. Also, the longer you observe, the more the organization will change. In one visit you can think you understand the context. But in a week or a month the players and processes change. Organizations are dynamic — they don't sit still for a portrait.

Conducting the Assessment Interviews

Individual interviews uncover valuable insights that few other methods can. Larry Mickelecky (1993) notes that even though time is at a premium in the workplace, a short interview is worth more than the best questionnaire. This is particularly true for workers who are uncomfortable with reading and writing. Interviews are especially helpful when you're operating in a new environment and aren't sure what the questions are.

Hints for Developing Interview Questions

- Before writing your questions, think about what you would like to learn from the interview. Use the project team to refine and develop questions that fit this workplace. See below for sample questions.

- If you are working with more than one site, be aware that not all questions will work well in all places. For example, our question on a typical day provided incredible detail at the developmental center, but not much of anything at some of the other sites.

- Don't be afraid to add questions as the interview process progresses. Emerging themes may lead to new directions for your inquiry, which should be incorporated into your interview questions.

- Don't be afraid to follow the flow of conversation and ask questions out of the order that they were written in.

- Some questions may yield obvious or redundant answers and can be dropped after one or two interviews. For example, the question, "Can someone else do your job if you're out," was covered by a specific substitute policy at one site, and this same policy was described over and over again to the researcher.

- Avoid questions that can be answered by a simple yes or no.

- Think about and include prompts that you can use to get people to expand their answers.

- Avoid questions that are too personal. You may negatively influence your participants' trust in you if you intrude.

- Use words like "learning," "training," and "skills development," and avoid words like "literacy," "remedial," etc.

Hints for Conducting Interviews

- If possible, it is a good idea to do some observation first, to become familiar with the content of the work, and to establish some familiarity and trust with those you will be interviewing.

- Try to find a quiet and private space to conduct the interview. People will be more comfortable speaking with you if their co-workers or supervisors aren't within earshot.

- If personal safety is an issue at your site, conduct interviews in a location that is quiet, but not isolated.

- Try to make arrangements with the organization to conduct interviews during the regular work day (not during breaks or lunch hours), so that participants don't feel "put-upon" by having to give up their own time to talk to you.

- Don't schedule interviews during busy times of the day or on days where the unit is going to be understaffed. The interview participants will be anxious to get back to work and will probably not give you as much time or attention.

- Interviews should be strictly confidential. Don't report what you have heard in the interviews to the participant's supervisors or co-workers. Even if you make statements anonymous, they may be able to identify who said them.

- Avoid interviewing people while they are working. Participants will feel rushed and will not give you as thorough answers as they would if they

were able to concentrate completely on the interview. There may be a few instances, however, where it may be useful to interview while people work. At one of our sites, the researcher got a more complete description of certain aspects of the job while she was observing.

Reviewing Your Interviews and Analyzing the Data

- As soon as possible after an interview, read through your notes to fill in any information you may have been missed writing down. At the same time, make notes about emerging themes, the tone of voice of the participant (if it is significant), and any other important information.
- You may want to develop a coding system of some sort to indicate emerging themes. This can be done by using different colors to underline or highlight these passages, or you can use a key word in the margin.
- When you are not getting any new information in the interviews, you have reached data saturation and it is time to stop unless it's important for people to feel they were included.

Sample Interview Questions

Questions should be tailored to your site with the guidance of a project team of stakeholders from the workplace:

Icebreaker

- What do you do in your job?
- How long have you worked here?
- What kind of changes have you seen in your time here?

Education and training issues

- What sort of reading, writing and math, problem-solving do you do in your job?
- In what areas might people here want to brush up on their reading, writing, math and problem-solving skills? What written material here at the workplace is the most difficult to follow?
- What activities could address the issues you have just raised?

- What kind of orientation and training have you received here? How useful were they? What would improve them?
- What kinds of upgrading programs would be useful for people here?
- What's your sense about how people at this workplace feel about further learning on a scale of 1 to 10, 1 being not interested, 10 being very interested.

Other Information

- Do you work in a team or do you work alone?
- Who do you communicate with at work? What do you communicate about? (in writing and verbally)
- How do people get promoted here? What might hold them back?
- How could written and oral communication be better here at the workplace?
- What would you like to learn so badly you would pay someone to let you learn it?
- How would you describe labor/management relations?
- What potential barriers are there to learning?

*Reprinted with permission from **An Organizational Approach to Workplace Basic Skills** by Sue Folinsbee [Waugh)] Ottawa Young Men's and Young Women's Christian Association, 1992. See the appendix for more wide-ranging questions we used in The National Institute for Literacy research project.*

In our research study we audio-taped interviews and had them transcribed. This is an expensive process that produces mounds of data. Sue Folinsbee warns against tape recorders because people are less likely to open up. She is also careful to ask the same interview questions of all groups in order to assure that everyone perceives the process as fair. Sometimes you need to continue interviewing after you have enough data just to be sure everyone feels they were heard. In larger workplaces, focus groups can help include larger numbers; they also tend to uncover a different quality of information and insights than interviews.

The interview helps identify emerging themes. Themes often arise out of the language that the workers use to describe their work. For example, the concept of "one-to-one and TLC" that was so important at the developmental center came directly out of interviews with Developmental Aides.

Conducting the Assessment
Focus Groups

We had not initially planned to conduct focus groups in our National Institute for Literacy study; however, we ended up wanting a forum for feedback from participants after we had conducted our initial assessment. We found that the groups provided a somewhat different quality of information than the interviews. People were more likely to be critical of their organizations in groups than as individuals. It seemed that if one person would speak up, then others would join in. Based on this experience, we recommend both groups and individuals for getting a better picture.

Sue Folinsbee's Organizational Needs Analysis uses both interviews and focus groups. The focus groups discuss basic skills upgrading needs as well as organizational barriers and incentives to learning. The focus groups begin an educational process and dialog about learning and basic skills in the organization. Unlike testing or pure ethnography, this assessment process actually begins the educational process.

Hints for conducting focus groups

- Don't mix supervisors with their employees.
- Conduct some kind of icebreaker activity to get people comfortable. Be sure to review the purpose of the focus group, who you are and why you are there.
- Assure confidentiality to the participants. The general results will be reported but not who said what.

Conducting the Assessment
Document Analysis

Another part of this assessment process is observing and collecting, if appropriate, the documents that people use in their work. The most important thing to note is how people actually use these as opposed to how they're supposed to use them or even how they say they use them. Basing a curriculum on documents nobody reads will not be very motivating or useful.

Step Four – Reporting the Results of the Assessment and Developing a Plan

The purpose of the organizational assessment is to help the project team develop short and long-range plans to address the needs uncovered in the assessment.

First, the person who conducted the assessment writes a report outlining the results including the methods used and the needs uncovered. The report should make recommendations about how to address both training needs and other organizational needs. The report should be written in a style that the organization can use. Folinsbee suggests presenting the findings to key stakeholders for their reactions before creating the final draft. As a working document, it's important that all the stakeholders perceive the analysis as fair and accept the general findings.

A good assessment will build the framework for asking the following questions:

- What are the short and long term needs?
- What are barriers and incentives to learning?
- What are organizational issues besides training and education? How do basic skills training needs fit into the overall organization and its plans for training and education?

Using the initial assessment report, the project team will be in a good position to prioritize the needs and develop short-term and long-term strategies to address them.

Principles of Organizational Assessment

We believe that methodology decisions and trade-offs in methodology should be based on a set of working principles. Project REACH is working on the following principles:

- Site development should be in place before any assessment takes place.
- Front-line employees as well as all the other stakeholders should have a say in the entire program implementation process including assessment.
- Organizational assessment should precede individual assessment.
- Assessment must understand and value work from the perspective of the front-line worker.
- There are few "quick fixes" in basic skills upgrading.

In considering a method for assessment, "the medium is the message." If the assessment is guided by a partnership of stakeholders, if it respects individual employees and honors the context of the organization, it will be laying the foundation for an educational program that the organization and the individual will learn from and support. If the assessment assigns a passive role to the learner or the organization it will be sending a strong message as well.

In the next chapter we outline some of the more interesting findings in our organizational research.

"Only basic goodness gives life to technique."

– Stephen Covey

The Seven Habits of Highly Effective People

Question

What can you learn from observations and interviews?

Chapter Three

Our Findings

In this chapter, we share some of our discoveries from the National Institute for Literacy Study. The study included observations and interviews with entry level employees at six worksites: custodians at an office complex, car cleaners at a commuter railroad, caretakers at a municipal housing project, nursing assistants at a city hospital, clerks in a central government office, and developmental aides in a center for the developmentally disabled. Six researchers interviewed seventy-five people and observed their work. We audio-taped and transcribed the interviews. Each researcher also wrote up her field observations. After reviewing the data, each researcher returned to the sites with a short summary of findings and met with the research participants to get feedback – usually in a small group meeting. Each site generated mounds of data and is a fascinating story in itself. What follows is a brief overview of several themes that emerged.

In the first section we outline the "big picture" – the strongest themes that struck us as we entered these worksites. Although our primary purpose was to study the social and organizational context for literacy, other organizational factors jumped out as much more compelling and important. The first section focuses on motivational factors: the joy, pride, anger and disappointment of working from the employees' perspective. The second section examines literacy issues more directly.

The Big Picture: The Context

Each worksite was an entirely different culture with its own norms, language, and patterns of social interaction. In trying to understand the context of work from the worker's perspective, we found several important differences among the sites. One important difference was the motivation to work, why people had taken these jobs and why they stayed. The joy, pride, anger, and disappointments in their work varied with their sources of motivation.

Motivation: Extrinsic and Intrinsic

Understanding people's motivation to work — why they chose their jobs and why they stayed — can help you build an educational program that taps into that motivation. For government workers, the extrinsic motivation of steady work and good benefits are major factors in taking these jobs. The nursing assistants were the only ones to consistently state that they had actively sought their career path. The intrinsic motivation of the work itself varied from setting to setting and also from individual to individual.

Clerk:

"You can't sit around all day here doing nothing. That is a misperception on the public's part. Our image is basically being changed, which is good... The job here is great. The benefits are great. Once in a while the work might get a little boring, but it beats sitting out on the street doing nothing."

Nurse's Assistant:

"You give the patient moral support. You end up being the patient's social worker, or you have to comfort them. Most of the patients have social problems. You do a lot more than patient care. You know, you do a lot more than you're expected to."

The most powerful intrinsic motivation emerged at the two sites with direct care workers – the nursing assistants and developmental aides. This was particularly evident at the developmental center. Most of the aides had taken the work because of the state benefits, but most that stayed expressed a real joy and caring in their work. Many expressed love for their developmentally disabled clients and repeatedly mentioned the need for "tender loving care." Ironically, in this setting, the paper and pencil side of the job interfered with this strong motivator. Aides expressed annoyance with the detailed behavioral indicators they had to record each day. In their eyes, these detailed reports kept them from attending to the more immediate needs of their clients.

Developmental Aide:

"I enjoy it because we are dealing with humanity... You feel as if you are doing something to help humans out. And I do feel good about it ... I think that I am in a special field and it is a ministering field, too."

Developmental Aide:

"... I look at the clients as though they were my own children. So if one of them needs to be changed, whether it is time for them to be changed or not, I will make sure that they get changed just as though I would my own child."

Developmental Aide:

"If you can go out of here saying that you knew a client wasn't sitting in feces or urine...if you know that you have fed them, kept them clean and dry for the day and just gave them a little affection, that basically to me is doing your job."

At the hospital, the nursing assistants sincerely believed in the importance of their work and noted that they were the ones in the hospital who provided the most direct care to patients while the nurses were involved in ever increasing paperwork. Knowing their importance in making patients and their families comfortable in the intimidating hospital setting gave great satisfaction to the nursing assistants. They were angry that they were not treated as professionals since they perceived their job as essential to patient care.

Nurse's Assistant:

"Personally, I feel fulfilled in what I'm doing because I'm helping other human beings. Even though sometimes we are put down in many different ways. All I know [is] when I go home I know somebody I helped felt better after I took care of them."

Developmental Aide:

"I laugh a lot, I like to dance, I like to joke around. I like to talk to the clients and I don't know if you want to call it flirting, but ... I will touch them, make them feel good, make them feel like they are somebody ... It's very hard for me to walk by a client and not say 'hi.'"

For custodial workers several intrinsic motivators emerged. In both the office and municipal housing settings, custodians expressed a propriety pride in "my floors" or "my building." Many preferred the physical work and sense of accomplishment in seeing the results of their labor – they expressed disdain for "desk jobs." These workers became angry and demoralized when they were switched to a new space without explanation. In one state setting, the custodial staff had suffered severe cutbacks. They were demoralized because they could no longer take pride in their work – they simply didn't have time to do a thorough job. While management explained that custodians were no longer expected to meet the same standards of cleanliness, this did not address the loss of pride in their work. In the housing project, custodians became demoralized when tenants made it impossible to take pride in their buildings. In extreme cases tenants were defecating in the hallways and urinating in the elevators. In the past tenants had been screened more carefully.

Cleaner:

I like to clean especially my bathroom and I will just look at it, just look, and I like to see what I do and what I do I try to do it really good. I try, you know, I don't say I'm perfect. Nobody is, but I do my best."

Another Cleaner:

I did secretarial [work] here and there but mostly cleaning. I went to school for typing but... I like cleaning. I don't like desk jobs — too confining, too, too, I don't know, I just didn't like it."

Cleaner:

I 'd like to do more but you can't. I mean the stuff that I'm not doing is stuff that I enjoy. I enjoy dusting and maybe getting a can of that leather cleaner... and shining up a leather chair to make it look nice. I mean, who wants to vacuum, wet mop and dust mop everyday? That's all I have time to do."

Another Cleaner:

I think a lot of people are demoralized. They are doing more work, and they are expected to do a lot more and not getting any more money."

The clerks in our study were the only ones whose work offered little intrinsic motivation. Although they took pride in improved turnaround time for customers, they had no direct contact with customers. Their unit of one hundred people processed 50,000 to 80,000 documents a week. Their source of motivation was more extrinsic and social. The clerks, with supervisory support, had elaborate "sunshine clubs" to celebrate birthdays, showers, and other events. There was job rotation and peer training in one unit. Clerks held half-hour meetings weekly without supervisors to discuss whatever was on their mind. One clerk summed up the essence of the work. In answer to the question what are your strengths on the job, she responded: "I just put my earphones on and do it."

Clerk:

"You get to the point, I've been here for ten years. I have been looking at the same paperwork for ten years."

Another Clerk:

"Typically you just come in and you know what you are supposed to do ... it's basically all the same thing. Checking the work. Making sure certain papers get where they need to go ... I could probably do it blindfolded."

We mention the motivators first because these are a powerful backdrop – context – against which to place the issues of literacy and education. For example, one of the most difficult aspects of adult literacy is recruitment — getting people to sign up for voluntary programs. Observations and interviews helped us understand potential participants much better. For example, we would have insulted the cleaners if we assumed they all wanted to advance out of cleaning jobs.

The "Other" Skills Gap

While we found people who took pride in their work and found satisfaction in it, we also found people who were mismatched and unhappy. Because of a bad economy or a recent divorce, we found, for example, a former craftsman humiliated in his custodial position and a poet suffering in clerical work. In the office setting, many of the clerks had left positions with more responsibility and higher skill levels in order to have the security of a state position. The skills gap of people's potential versus what their job required was larger than any skills gap based on employee deficiencies.

Standardized testing or literacy task analysis would not capture this information about people's untapped potential.

Motivators: Supervisors

The quality of life for employees in the same organization varied significantly with the quality of their immediate supervisor. It didn't matter whether we were looking for this information or not; it was too big a factor in the workplace to ignore when it occurred. The perception that a supervisor was unfair or played favorites made people very angry. In conducting interviews and observations some of this frustration emerged. In small group discussions it boiled up almost immediately.

Developmental Aide:

"One of our supervisors doesn't know how to communicate with people. You know, when you could tell someone to do something in a nice way he will say it in a very intimidating, offensive way and it's how to handle him, how to handle the way that he talks to you. And I won't say that I have a handle on it 'cause I don't."

Cleaner:

If you are cooking, you get a certain satisfaction to know that you accomplished something. When here if you try to do your best, nobody says nothing."

The importance of supervisors in employees' everyday work life underscores the importance of having front-line supervisors participate and buy into workplace literacy solutions. If supervisors do not support employees' participation in educational programs, they can undermine attendance. On the other hand if they are supportive, they can really bolster program success and employee participation.

Literacy Issues

We mentioned the motivational factors first because they provide the backdrop for literacy issues. In looking at the big picture, skill issues pall in comparison to these motivational factors. Although each of our sites provides a rich story, we have extracted here several of the more interesting findings. Literacy issues include: the centrality of language to the job, uses of print, the importance of speaking up and being heard, incentives for further education, the role of civil service testing, organizational barriers and incentives to learning, changing organizations and increasing literacy needs, and a final section on "organizational learning disabilities".

The Centrality of Literacy to the Job
A World Without Words

In the most extreme case of our six sites, we came close to finding "a world without words." The researcher observing the night shift of car cleaners concluded: "What really goes on is difficult to capture on paper – the hours of walking through the trains picking up scraps of paper, cups, candy/gum/chips wrappers, etc. or the hours of scrubbing and mopping. There isn't even much dialogue that goes on during the work – the work is done very independently. Personal conversations go on during little breaks, if at all. In short, I feel like I observed a tremendous amount of activity that doesn't amount to much in words."

While the car cleaners' job is an extreme case, we observed that most cleaning jobs do not center around language skills. This is repetitive, physical, often solitary work. One superintendent summed it up saying that while he didn't know which employees could read, he certainly knew who did their jobs well. The buildings they cleaned spoke for themselves. In another setting, a respected general foreman who had worked her way through the ranks was widely known to have difficulty reading. (We're not sure how she passed the written test for her position...)

Our researchers were on the lookout for literacy needs imbedded in the job, but it was a stretch to find anything substantive. Probably the most important need was for the caretakers in the housing project who had to interact with tenants. Much of their training was devoted to tenant relations. Managers in several settings expressed concerns for safety and problems in filling out time cards and reading work orders. While some cleaners did acknowledge their reading difficulties in our interviews, none expressed needs related to safety or filling out forms properly. The perceptions of the different stakeholders were at odds.

For example, measurements of cleaning materials were handled in a number of ways – but these rarely included reading directions or using formal measurements. Just like anyone who uses something almost every day, the cleaners didn't stop to formally measure and follow directions. Those who did their own measurements could show you the required amount by showing how far in the pail to add the cleanser. Our observations found several instances of elaborate safety measures with unintended results. For example, custodians in the office buildings used germicidal soaps in pre-measured packets designed to dissolve automatically in warm water thereby ensuring accuracy and safety. In reality because the hot water had been turned down to conserve energy, custodians had to tear open the containers and swirl them in the water to get them to dissolve.

In some cases we found that managers' perceptions of basic skills needs did not correspond to workers' perceptions and actual practices. Building a program on those needs without first discussing the differences would be a shaky foundation for a program.

Uses of Language in Context
Care Taking versus Record Keeping

At the developmental center aides must comply with extensive documentation requirements recording daily on a checklist each client's medications and dietary needs as well as progress toward achieving specific behavioral objectives or daily tasks. Objectives included detailed documentation such as daily changes in a client's ability to comb his hair. The developmental aides comply with these recording requirements, but most consider them to be an intrusion on the real content of their jobs – providing client care. In a community residence outside the developmental center where aides had more freedom and autonomy, they had developed a computer record keeping system that cut down substantially on the amount of time spent in record keeping.

Developmental Aide:

"I am not good with – like paper work – I don't want to do it. I would rather just get right in and clean people up and, you know, deal with the clients directly. I don't like to do the behind the scenes work."

In contrast to the developmental aides who felt overwhelmed with documentation, the nursing assistants resented their lack of access to patient records. They felt they provided the bulk of direct patient care at the hospital but were not privy to information about the patients' conditions. It was the nurses in this setting who were overburdened with recordkeeping to the point of being unavailable for patient care.

On another plane, the nursing assistants perform a sophisticated language skill with little acknowledgment. Many are bilingual and routinely translate for monolingual doctors and patients.

Unlike the other jobs in this study, the office clerks' jobs center on written language and record keeping – documents and computer screens. The jobs require accuracy and speed plus constant attention to small exceptions. Our researcher noted: "The first day of observation my head was spinning with unfamiliar abbreviations, names of forms, and what seemed like hundreds of tiny details and exceptions to remember." The position requires high accountability and yet does not allow for much individual problem solving. Once the details are mastered, boredom is the enemy. A six-year clerk explained, "I am just plain bored with my work because after a while, after you have learned all you can learn on my job, I mean ... the day used to go by... pretty quickly. Lately, it hasn't been."

The clerks worked together to write their own procedures manuals. These written procedures are useful as a reference but not to the uninitiated. Here's a sample of the directions from a procedures manual on how to handle an MV900 or Notice of Lien. It simply doesn't make sense until you know the vocabulary and have tried to do the job. On the other hand it could be a useful reference if you forget exactly what to do.

> "Lien to be recorded on title; white form from a lender; Example: bank or credit union, individual, etc. requires $5.00 fee. If MV900 comes by itself, with charge or check only, these are to be bundled separately from other MV900's (with titles or letters) by type (check or charge). On these MV900's must be on top of, check facing out on back of MV900, staple on front left top corner. Discard envelopes. All other MV900's, keep envelope. Remember to bundle separately and take count."

The uses of language in this setting were so specific that it would be difficult for an outsider to develop training. Peer and supervisor training in this setting worked very well.

Change

As we conducted our observations and interviews over several months, we saw important processes and players change in several of the organizations – especially those state organizations involved in Quality Through Participation (New York State's total quality management initiative). For example, the developmental aides were going to abandon checklists for narrative reports on clients. This change would demand a whole new level of writing skill. The developmental aides were initially very apprehensive about closing the center and moving to community settings. The were calmer later when they knew more about how and where they would be assigned. In another setting, the promotion of a manager brought the whole progress toward participatory practices into question. At the office setting, procedures changed each week as clerks took on new responsibilities and trained each other. Most custodians were moved from the day shift to the night shift. A fixed assessment or curriculum could never keep place with the rapid changes at these sites.

Clerk:

"My gripe is that it is several grade 6's work positions that have been incorporated into one. So I feel that the amount of knowledge that is required is not like it used to be, and I can for grade 6, sit and open mail. You know, instead of doing what I do: I correspond with the public, I have to make judgment calls, I have to make a lot of decisions about paperwork I am handed..."

Literacy and Advancement: The Civil Service Exam

In our six research sites we found only one position, the clerks' job, which centered around reading and writing skills. In the other positions a person with relatively weak reading and writing skills could still perform essential job tasks well. However, much higher level skills were required for advancement. Enter the Civil Service exam. In a government setting civil service exams are the ultimate assessment instrument.

In fact in our sample, three of the job titles had already been screened by tests. The clerks had to pass an extremely competitive exam to hold a position only one grade level above entry-level cleaners who did not take a test. The developmental aides also had to pass an exam; however, shortages in the past had allowed people with weaker scores to prove themselves on the job. The nursing assistants had been "grandfathered" through a newly instituted test requirement. Only the cleaning jobs did not have entry test requirements.

For any of these people except the nursing assistants to advance, the next step was to pass an exam. Test taking is one literacy skill that is highly rewarded in the State system. Every setting had examples of people who were excellent at their jobs but poor test takers. In each setting some workers had been in the same entry level position for ten to twenty years.

However, tests were not the only barrier to advancement. In several cases there were other important disincentives to advancement. If the car cleaners did not transfer and advance early in their careers, they would lose salary and seniority benefits. The housing authority caretakers would have to give up significant overtime pay in order to advance. The office cleaners might have to take a "desk job."

It's easy to assume that advancement is a motivator for workplace literacy programs. We found that this is not always the case. Again, the political, historical, social context as well as individual needs shape the individual's motivation or lack of interest in further learning.

The Desire for Further Education

None of our jobs required more than a high school diploma, and some didn't require that. The interest in further education varied greatly by job title. The developmental aides and nursing assistants expressed the greatest interest in continuing their education. Some caretakers expressed interest in trades training.

The clerks, who were presumably the "most literate," expressed the least interest in further education. In their position civil service tests were the only way to advance. The head clerk in charge of their hundred-person division held a high school equivalency. He was an intelligent well-respected person who had done well on civil service tests and in his job assignments. An entry level clerk and supervisor who reported to him both held masters degrees. Clearly education level had little to do with advancement opportunity in this setting.

By contrast in the hospital, employee name tags listed the employee's education level: RN, MD, PhD etc. Nursing Assistants were painfully aware that they were not considered medical professionals and were interested in continuing their education.

Nurses Assistant:

"Get some classes in this place. Give me the education that I need. This way, when a person looks at me, they don't have to look at me as a NA [Nurse's Assistant]."

Literacy as Empowerment Speaking Up and Being Heard

In looking at the big picture, the context, for uses of literacy if we were to only focus on the specific skills embedded in these jobs we would be focusing on peripheral job requirements: filling out burdensome reports, studying cleaning directions, or time cards. However, if we are looking for literacy as the ability to speak up and be heard, to question and change organizational practices, then some different needs emerge.

Moving to Participatory Management

Several of our sites were in the midst of implementing New York State's Quality Through Participation program. These changes toward more participatory management created some interesting new needs.

The developmental center was scheduled to close and was moving clients to smaller community residences where developmental aides had to work in teams and provide a wider range of services. In one community residence aides worked beautifully together and had taken advantage of their autonomy to develop a computer program alleviating their record keeping responsibilities. In another residence employees voiced tension, personality conflicts, and dissatisfaction. The aides and their supervisors needed insights and skills for working through conflict in order for their autonomy not to be more oppressive than working in the more controlled centralized setting.

Developmental Aide:

"When we came [to this unit] ... we had a good staff. Everyone worked together and now we have got the one shift pitted against another ... rumors fly. It has gotten to the point ... we have one individual that if someone working with her calls in sick you can't get overtime because people don't want to work with her. Everyone is unhappy."

Developmental Aide at another site:

"... It's just a good job. I feel very happy and everyone gets along. There is not any of that nit picking between shifts and the fighting and the arguing, you know. If there is a problem, people go to each other and make sure they straighten it out."

The move to community residences also required more sophisticated reading and writing skills of the aides. The department was going to move away from checklists to more narrative client reports. Aides with weak skills talked about this in their interviews and had already begun tutoring on a voluntary basis. Those who had weak skill levels were quite forthcoming in their interviews about their needs.

In the office setting the head clerk had instituted weekly half-hour meetings that the clerks held in each of their units without supervisors present. They could then request a meeting with their supervisor to discuss any issues that arose. Additionally, the head clerk met with each unit once a month to air concerns.

In the clerks' meetings they were free to discuss whatever they wanted. We observed very participatory meetings which ranged from planning birthday celebrations to discussing new procedures. However, in their meetings with supervisors (which we did not observe) clerks explained that there were usually only one or two people who were willing to speak up. In fact some groups actually decided who would speak for them believing that supervisors accepted complaints from some people better than others. Some clerks felt that their ideas

never made it past the supervisor back up the chain of command. A few more cynical ones felt it was pointless to speak up because nothing would change anyway. They felt the head clerk was more open to their suggestions than their immediate supervisors some of whom felt the meetings were a waste of time. This was a fascinating picture of an organization in flux toward more participatory structures. Some of the players were more comfortable and skilled in speaking up than others. The front-line supervisors were caught in the press of the old need to control (which was still in effect) and the new need to encourage and act on employee input.

These settings where front-line workers were beginning to take on more responsibility called for higher level skills in dealing with each other. But unless their supervisors and managers also improved their skills and understandings, a skills program for the front-line employees alone could be frustrating and do more harm than good.

Assessment and Empowerment

This assessment approach of observations, interviews, and small group meetings allows people to talk and think about their work. For front-line workers this is often the first time that an outsider has listened and paid close attention to what they do. In contrast to tests or performance appraisals that look for deficiencies, this process begins a dialog about the nature of their work and its importance. This dialog can be the beginning of an educational process – for both the front-line employees and their organization.

Empowerment is, however, never as easy as it sounds. An outsider who listens and respects employees provides an outlet for those who are unhappy and frustrated and need to be heard. As researchers we could not limit discussion to carefully defined "literacy" needs. Employees took this opportunity to vent frustrations about things such as difficulties in getting equipment, an abusive supervisor, annoying policies, etc. It was in group discussions that employees were most likely to voice their complaints. In one-on-one interviews and observations, people tended to be more guarded.

This outcome was difficult in our research study because we needed to be sure we would not jeopardize employees by reporting their concerns. We were not in a position to implement changes, and some organizations were more open to hearing the needs expressed than others. In one case, we shared the preliminary results with management representatives who became defensive and angry that our report had strayed from assessing literacy needs to "bashing management." They pointed out that our assessment hadn't included the many difficult constraints on management during a very difficult time of severe cutbacks.

These difficulties taught us once again the importance of making the entire assessment and program development process a joint partnership among all the stakeholders. It doesn't make sense to invest in this type of assessment unless the organization is ready to at least listen to the results. The empowerment process involves a dialog among the stakeholders in the organization – it can't be one-sided.

Organizational Learning Disabilities

This organizational approach to assessment can discover not only employee needs, problems, strengths and weaknesses but also wider organizational needs and problems. Peter Senge in his book *The Fifth Discipline: The Art and Practice of the Learning Organization* talks about organizational learning disabilities. We found several examples of organizations having limited ability to learn from employee innovations and improvements.

For example, a caretaker working in the housing authority storeroom had developed an excellent record-keeping system for organizing the store room. Every project in the city had a store room, and each caretaker had to figure out how to organize it alone. Similarly, the developmental aides had no mechanism for sharing their computerized record-keeping system with the larger organization.

The civil service testing system, while it protects against arbitrary hiring practices, also prevents the state from tapping the talents of people who are poor test takers and excellent workers.

Conclusion

At each site in our observations and interviews we were better able to understand the worksite from the perspective of the front-line workers. We were able to see what motivated them and frustrated them. We learned much more about important barriers and incentives to learning than we would have in individual testing or literacy task analysis. Some of our findings brought into question common assumptions. For example, advancement is not always a motivator for training. Management's perceptions of advancement opportunities, and learning needs are not always the same as those of the front line workers.

Quality Through Participation was creating rapid changes, problems, and opportunities. Any assessment in this dynamic environment would need to have a way to be on-going.

A weakness of our research was the fact that we did not have a mechanism to engage all the stake holders in a dialog. Our research included observations and interviews and some focus groups with front-line workers - but it did not capture multiple viewpoints and it did not allow the stake holders to talk to each other. This experience reinforced Project REACH's resolve to require on-going partnerships of stakeholders in any workplace education program.

The New Questions

What is the social and organizational context for using basic skills?

How do workers perceive their needs for basic skills?

What are social and organizational barriers and incentives to learning?

What is the problem? Is it a skills problem? Are all the stakeholders agreed on the problem?

What are the short and long-term solutions? How will we know we're progressing?

What part of the solutions involve education and training? How can they be structured to assure reaching the goal?

Is individual assessment needed? At what point?

Chapter Four
Next Steps

To conclude, we look at how we can use these findings. What are the implications of this approach? How can it be implemented in an organization?

What is the purpose of assessment?

The purpose of an organizational assessment is to frame the questions a workplace literacy program must address. Workplace literacy is complex. The acquisition of basic skills is complex. Organizations are complex. Learning in organizations is not linear and straightforward; all sorts of barriers and incentives exist; only some of which are easily identified. The purpose of assessment is to frame the questions so that we can begin to define the problem and begin the dialog about the educational process of looking for solutions. To frame the questions and define the problems requires multiple viewpoints - organizations are not one dimensional. It requires knowing the context so that the stakeholders can frame the problems. The assessment provides a foundation for planning both short and long term solutions.

Without asking fundamental questions first, we fall into the classic trap of jumping in with solutions before we understand the problem. Assessing individuals first is just one example of jumping in with a solution before the problem is defined. Maybe the problem is not related to individual skills. Maybe the supervisor thinks it's skill-related, and the worker thinks it's system-related. For organizational solutions, the stakeholders have to agree on the problem and the solution. One sided solutions don't work on multidimensional problems.

The results of an organizational assessment will almost always point to a number of short and long term needs The next step in the process is to identify and prioritize the needs in a short and long-term plan. Some of the needs will be educational, some will not.

What is the Range of Solutions?

First we'll look at the range of possible organizational solutions. Then we'll look at specific implications for literacy and educational interventions. Perhaps the hardest thing for an educator to accept is that education or training is *not* always the answer.

Organizational problems require organizational solutions

Organizational problems require organizational solutions. Teaching custodians to read instructions better won't help if they don't have access to the supplies they need. Teaching clerks how to participate fully in meetings won't help if the supervisor running the meeting isn't open to employee participation. An organizational assessment is not helpful if the organization is not ready to consider organizational solutions.

The book *Training for Impact* (1989) summarizes this concept in a helpful equation:

Any amount of education or training times zero support in the business environment will produce zero in terms of *business* results.

Implications for Curriculum
When *not* to contextualize literacy curriculum to the business environment

Our approach to assessment has several important implications for practice. First this approach opens up the possibility that education or training is not always the answer. Non-educational interventions may address the problem more directly. For example, as a result of the assessment at the hospital, the hospital is looking into a recognition day for nursing assistants to acknowledge their contributions to patient care. Career counseling might be a better way to match people to appropriate jobs than training. Rather than teaching people how to fill in difficult poorly designed forms, it might make more sense to redesign the forms. Before teaching front-line employees conflict management and team building, it's probably more important to train their supervisors.

Our findings also have implications for curriculum design and the idea of functional context curriculum. How does one develop a workplace literacy program for work in "a world without words"? We believe this is an example where observation and interviews uncover very different needs and interests than would a literacy task analysis. If we built a curriculum around the little bit of reading required for custodial work, several problems could develop:

- the curriculum would be boring
- the curriculum would not focus on critical tasks
- the curriculum would not focus on the interests of the participants
- the curriculum would not be reinforced consistently on the job since most reading and writing is sporadic, not steady and central to the job

A curriculum based on custodial work would not be highly interesting or have a high impact on productivity. It would not be motivating. It could have a high likelihood of being perceived as condescending and boring. Sheryl Gowen's book *The Politics of Workplace Literacy* documents what can happen when a workplace literacy program is built around simple job tasks. The participants were insulted to read about hints on how to mop better, for example. During one of our focus groups with custodians, a bright funny man asked "What are you going to teach us, Janitology?" The job isn't that complex – which doesn't mean that it's not hard work in which people take pride.

The second approach for such a program is to focus on the literacy skills needed for promotion. Several possible problems with this approach emerged. First, promotion in most of these settings requires passing a civil service test — many readers had trouble passing the state exam for custodial supervisor. Also there were other barriers or disincentives to promotion besides skills. It's very important to know whether advancement opportunities are real before establishing an educational program around that goal.

We believe the motivators for improving literacy skills for workers in these jobs may often be personal. A curriculum will have to go beyond the job to engage people. The theory behind using the "functional context" for workplace literacy is that people learn much faster when they are learning skills and information that is reinforced immediately back on the job. Less of those opportunities exist for much custodial work.

When an organization is not ready to accept organizational solutions or when work involves minimal literacy needs, it makes more sense to offer literacy programs for personal development contextualized to the learner's individual needs and motivations rather than contextualized to the workplace. It *may* be that individuals want to have better skills to perform at work; it may also be that they want better skills to get a G.E.D., to get another job, or to help their children or to participate in church or community activities. In some of our settings motivation to do a better job at work would be a major motivating factor for better basic skills; in other settings a work-related curriculum would act as a deterrent. The stakeholders can decide that general improvement of skills for personal development is worthy of organizational support.

Organizational Solutions

There are many ways besides literacy classes to address the needs uncovered in an organizational assessment. Sue Folinsbee stresses that successful basic skills upgrading programs are multipronged and long-range. Possible solutions include:

- Supervisor Training – Supervisors are caught in the middle as organizations try to become more participatory. How can supervisors encourage employees to develop basic skills? How can they engage in helpful dialog?

- Re-writing and clear writing workshops – If complicated forms or poorly written procedures are getting in the way, it may make sense to rewrite forms and to teach managers to write more clearly.

- Counseling – some workers were caught in jobs that didn't suit them or that didn't match their skills and strengths. Career counseling, greater awareness of career ladders might help but only if it's realistic. It's important to know which advancement opportunities are real and which are hollow promises.

- Individual assessment – individual assessment may be warranted especially if there is more than one educational option available. Certainly individual assessment is important once a person is engaged in a long term learning situation.

- Multicultural awareness and appreciation. Sometimes requests for English as a Second Language classes mask intolerance or misunderstanding of

different cultures. Supervisors and co-workers need to be aware of cultural barriers to communication that go beyond language skills.

- Literacy task analysis – may be warranted if initial analysis indicates that a well-defined task is giving many people problems.

Literacy for Empowerment

If a workplace is working towards participation and worker empowerment, then it is ready to introduce problem-posing education in which members of the organization enter into dialog on the contradictions involved in "empowering" people at the bottom of a hierarchy. Enabling people to have the skills and confidence to speak up and participate entails being ready to hear what they have to say.

Literacy for empowerment and participation entails looking at the whole instead of well-defined sub-skills. Problem solving and team work require higher level skills than simply encoding or decoding. They lend themselves well to team-based solutions.

In settings where the main need appears to be the skills to work in teams, it simply doesn't make sense to test individual ability levels. Teams are supposed to function with people at different ability levels.

Assessment is Not a Product But Part of a Larger Process

Assessment is just one step in developing a workplace literacy program. Returning to the circle model of Sue Folinsbee's (page 14), we see that the first step is recognizing the need and developing the commitment of all the stakeholders. Assessment builds on this first step by providing the framework for asking questions and identifying problems and opportunities around which to build a plan. The plan can include any number of interventions; it may or may not call for individual assessments depending on the context and the needs.

Paul Jurmo and Laura Sperazzi have developed a team-based evaluation model for workplace literacy programs which engenders ongoing involvement of all the stakeholders. The team collects feedback in an on-going cycle. The upfront assessment is just the first step. The advisory team takes responsibility for on-going evaluation of the plan. The stakeholders identify what they need to know for what purpose and continuously evaluate the success of the interventions as they are implemented. Feedback to and involvement of the stakeholders is a part of the process. It is a political process involving dialog and negotiation among the stakeholders. It is an educational process in which all the stakeholders learn more about the organization the nature of learning in their organization. Then gain continuous feedback for continuous improvement. This process takes on a different look in every organization.

This approach resembles a "learning organization" as described in Peter Senge's popular management book *The Fifth Discipline: The Art and Practice of the Learning Organization*:

> The tools and ideas presented in this book are for destroying the illusion that the world is created of separate, unrelated forces. When we give up this illusion – we can then build "learning organizations," organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.
>
> ...The organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at *all* levels in an organization." (pp. 3-4)

The long range big picture

We applied for the National Institute for Literacy funding in order to explore alternative assessment approaches. We had hoped to fine *the* method for assessing literacy skills in context. We ended with a set of questions and a firmer conviction that assessment is part of an on-going educational process. At the close of our first project meeting we quoted the following poem which still seems appropriate:

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.
– T. S. Elliot

Summary of the New Questions

How does your history affect your program decisions?

What are you assessing and for what purpose?

What definition of literacy is guiding your approach?

How do you assess literacy in the social and political context of the workplace?

What should be the scope of an organizational assessment? How much is enough?

What are the steps to develop a site to support a workplace literacy initiative?

How does an organizational assessment lay the foundation for planning?

What can you learn from observations and interviews? What is the social and organizational context for using basic skills?

How do workers perceive their needs for basic skills?

What are social and organizational barriers and incentives to learning?

What is the problem? Is it a skills problem? Are all the stakeholders agreed on the problem?

What are the short and long-term solutions? How will we know we're progressing?

What part of the solutions involve education and training? How can they be structured to assure reaching the goal?

Is individual assessment needed? At what point?

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Appendix
Observation Guide

1. What is the position of the individual worker in the larger context of the organization?

    a. Where is the work performed?
    b. To what department/responsibility is the worker assigned?
    c. To whom does the worker report and does anyone report to him or her?

2. What is the physical environment of the particular workplace?

    a. Is it quiet or noisy?
    b. Is it clean or dirty?
    c. What, if any, are the furnishings?
    d. What, if any, is the equipment?
    e. Does the worker have any control over the construction of the environment?
    f. What is the physical "map" of the workplace(s)?

3. What is the social environment of the particular workplace?

    a. What interactions does the worker have with supervisor or supervisee?
    b. What interactions does the worker have with fellow workers?
    c. What interactions does the worker have with clients?
    d. What other interactions does the worker have? (vendors, general public, etc.)
    e. What are the demographics of the workplace?

4. What is the print environment?

    a. What, if any, signs are present?
    b. What, if any, notices or announcements are present?
    c. What, if any, manuals or books are present?
    d. Is there any indication that any of the workers avoid reading?

5. What are the responsibilities of the worker?

    a. Which responsibilities are specified in a written job description?
    b. Which responsibilitiés are "enforced?"
    c. Which responsibilities does the worker assume voluntarily?

6. What tools or materials are used in the job(s)?

    a. What tools are used?
    b. How are they used?
    c. To whom do the tools belong — the individual or the institution?
    d. What materials are used?
    e. How are they used?
    f. Are any of the materials hazardous?
    g. Does the worker have any control over the use of tools or materials?

7. What tasks does the worker perform?

    a. How many particular tasks does the worker perform?
    b. How frequently are they performed?
    c. How routine are the tasks?
    d. Are any of the tasks "critical"?
    e. Are any of the tasks done in cooperation with others?

8. What texts are used or produced?

    a. What documents have to be read? Which are read? How are they read? (for example, as a task is being performed, before a task is performed, unrelated to any particular task?)
    b. What documents have to be written? Which are written? How are they written?
    c. What documents have to be filled in? Which are filled in? How are they filled in?
    d. How often are different documents used or produced?
    e. When are different documents used?
    f. What non-work related texts are read - at lunch, about benefits, about safety?
    g. Do workers seem to avoid some texts? Do some workers systematically avoid reading?

9. What numeracy or conversation-based tasks are performed?

    a. What conversations have to be held? In what language? How are they held?
    b. What computations have to be performed? How are they performed?

10. What languages are spoken in what situations? Is there a vocabulary specific to this workplace? What are the shared references of people in this workplace that an outsider would not understand?

11. What estimates or judgments have to be made?

Appendix

Sample
Interview Guide

Introduction

Hello, My name is _____ . Thank you for helping me out. As you know, I'm here as a researcher to find out how people learn on the job. I'm going to the experts — you who do the job. The reason I'm tape-recording our conversation is to help me remember exactly what you say. Your answers will be strictly confidential — your name will not be used in the report. You'll be given an alias name so everything you say is confidential. What you say could help unions and management make learning on the job easier — either through training or re-structuring tasks. I'll be back in a couple months to talk with you again and ask you some more questions.

1. How long have you been working in your job? How long for this organization? How long in this occupation?

2. What other jobs have you had in this occupation? How does this job compare with them?

3. Have you ever worked in any other occupations? (If yes,) what did you do? For how long? How does this occupation compare with others you've experienced?

4. When and where did you go to school? Tell me about your educational experience.

5. Let's go into detail about your present job. What is your job? What do you do? How does your job fit into this workplace?

6. (If necessary) What's your typical day like?
   a) (If necessary) What hours do you usually work?
   b) How is your time organized? It seems to me that you spend a lot of time doing _____. Is that unusual?
   c) Do you always do your job here?
   d) Who are the others you work with?

7. How frequently does the job change? Since you've been here, have your activities changed? When and how?

8. How long have the other people around here been doing this job?

9. How did you come to get this job?

10. Did you go through any training when you first started this job? (If so) How helpful was the training?

11. Do you remember how you learned to do different parts of the job? How important was the help of other workers and/or supervisors? (If there are manuals) How helpful were the manuals? How helpful has your school education been?

12. Have you participated in any other training or educational programs? Are you involved in any now?

13. How long did it take you to feel you really knew the job?

14. Were there any especially hard things to learn?

15. Can someone else do your job if you're out? Do you ever train anyone new? How do you or would you go about?

16. In reference to (some particular task), could you tell me what you were doing? [How did you learn that?]

17. In reference to (some particular use of print or writing), could you tell me what you were doing?

18. Tell me about a recent problem you encountered on the job and how you handled it.

19. Are there other positions that you might be interested in doing either now or in the future?

Appendix

Project REACH
Sample — Memorandum of Understanding

TO: (manager & CSEA Pres. in alphabetical order)

FROM: (Name)
Project REACH

DATE:

SUBJECT: Basic Skills Training Agreement

The following is an agreement between Project REACH, CSEA local # , and (name of facility) to provide basic skills training to CSEA-represented workers. Described below are the resources, support, and services which have been committed by each party to this agreement. Please review this agreement, obtain signatures of both the CSEA local President and facility management and return it as soon as possible to me at (address.)

If you have questions or wish to make changes or additions please call me at (phone #) and we can discuss them. We look forward to an effective and productive training partnership.

Services/Support Provided by REACH:	The full cost of any task analysis, need or interest assessment, curriculum development, and instruction.
	Team training for all members of the Project Team and on-going technical support during the duration of the project.
	Consultants and/or instructors will be hired as needed by Project REACH.
Services/Support Provided by Facility Management:	Release time for Project Team participants to attend meetings. (Usually monthly meetings of approx. 2 hours each) and to conduct assessment, recruitment, and evaluation activity.
	Regular attendance and participation in project team meetings and tasks by appointed management representatives.
	Release time for Project Team participants to attend meetings (usually monthly meetings). Active assistance and support in publicity and recruitment efforts with managers and supervisors.

	Space and release time for interviews and/or testing of workers. (xx — xx workers, xx — xx minutes each.)
	Release time for xx class participants to attend xx hours of classes. Schedule would be determined by the Project Team.
	Classroom space — x hours (once/twice) per week for xx weeks.
Services/Support Provided by CSEA local:	Regular attendance and participation in project team meetings and tasks by CSEA-appointed representatives.
	Active assistance and support in publicity and recruitment efforts with workers.
Use of Project Team:	A labor/management project team will be appointed (if you're not at the meeting your representative will make decisions) to oversee the training project and make decisions regarding training priorities, curriculum content and design, recruitment, participant selection, scheduling and logistics, and project evaluation.
	Facility management will appoint representatives to the team including: 1 executive-level manager 2-3 working supervisors 1 training or personnel representative
	The CSEA local will appoint: 1 CSEA local representative 3-4 workers from different shifts/departments
	Each class will elect a delegate to the team if no team member is participating in class.
Time Period:	Total project duration including initial assessment, instruction, and final evaluation is estimated to be from xx/xx/xx to xx/xx/xx.
Release/Flex Time:	(describe any commitments to release, flexible schedules, or overtime made.)

Additional Agreements: (Note any other commitments made by facility, union, or REACH. Also include, other supplies, facilities, equipment or guest speakers committed or promised.

The undersigned hereby agree to the terms noted herein and agree to conduct the training project in conformance with these terms and as further agreed jointly by the CSEA Local # and management at (name of facility.)

Project REACH:

_____	_____
Name (please print)	Title
_____	_____
Signature	Date

(Facility Name) Management:

_____	_____
Name (please print)	Title
_____	_____
Signature	Date

CSEA Local XXX:

_____	_____
Name (please print)	Title
_____	_____
Signature	Date

Appendix
KEYS TO SUCCESS
For Workplace Learning

While providing workplace learning opportunities to CSEA-represented workers in a variety of different New York State agencies and facilities, Project REACH has learned a great deal too. We've learned much about what makes these learning partnerships between workers, managers, and educational providers truly effective. We've also learned that a number of key questions must be carefully addressed in the planning process to ensure a successful outcome.

We share these "KEYS TO SUCCESS" with you as we start our mutual training effort because they are an integral part of Project REACH's operating philosophy and will serve as a foundation for much of our work together.

Creating Labor — Management Support

Project REACH is a labor/management initiative and is built upon a joint approach to meeting needs in the workplace. For a program to be successful at a local level, management and labor will need to find a common goal they can equally support. A labor/management project team will need to be established.

Key Questions:

Have union representatives discussed this initiative from their perspective?

Have immediate supervisors of the employees to be involved been surveyed for input?

What is management's goal for the program?

Creating Support and Buy-In of the Employees

Project REACH's philosophy is that in all its funded projects the employees who will participate should be represented in the process to assess needs and set goals, decide on program design, and evaluate outcomes.

Key Questions:

Are there employees you can tap to be part of the project team?

Have employees been involved in expressing the need for this program to date?

Determine the Need

In order for the provider to know what to instruct, in order to recruit students, and in order to gain approval for the program, we need to know what is the **specific need** at your location you are trying to meet with this training.

Key Questions:

What need within your orgainization will be better met if your workers receive this training?

What will workers be able to do more effectively if they complete the training?

Know Your Audience

Each worksite, each individual employee, each agency is unique in its characteristics.

Key Questions:

What are the learning interests of your employees?

What will motivate them to participate?

What are their goals and what do they want to get out of a new learning situation?

Insuring a Quality Program

We have found that a quality program requires a lot of local attention. You just can't set it up and expect the school to do the rest. The program needs to be monitored. Participants need to be surveyed on a regualr basis to determine if the program is effective. A local advisory committee of management, union, and worker representatives is suggested to help with program planning, design and evaluation.

Key Questions:

Does your site have one key contact person who can coordinate all aspects of the program with the project team and the provider?

Will the agency and union support the project team and give it the authority to make program decisions?

Planning Next Steps

REACH will provide funding upon receiving a well though out plan that identifies:

— need for training
— worker's interests, goals and motivation
— agency and union support
— key contact person and project team
— how the new training skills will be implemented on the job
— release and flex time policies
— selection criteria and advisement procedures

Key Questions:

What assistance will your agency need in order to develop a plan with the above features?

What are your projected timelines to starting the project?

Are there peak weekly or seasonal work periods that should be avoided in the training schedule?

Who will your agency need to involve in the project team to develop a plan and proposal that represents the needs of all key stakeholders?